



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/628,398	08/01/2000	David A. Selby	RSW9-2000-0080-US1	5649
7590 Mark D Simpson Esquire Synnestvedt & Lechner 2600 Aramark Tower 1101 Market Street Philadelphia, PA 19107-2950			EXAMINER BLECK, CAROLYN M	
			ART UNIT 3626	PAPER NUMBER
			MAIL DATE 05/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/628,398  
Filing Date: August 01, 2000  
Appellant(s): SELBY, DAVID A.

**MAILED**

MAY 11 2007

**GROUP 3600**

---

Mark D. Simpson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 16 December 2005 appealing from the Office action mailed 21 October 2004.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,775,936	Jung	10-1998
5,648,900	Bowen et al.	7-1997

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Appellant regards as his invention.

2. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention.

(A) Claim 1 currently recites that the system-wide reservation information includes "past reservation information including information unrelated to said particular perishable commodity." It is unclear to the Examiner what type of information the Appellant intends to claim with the presently recited "information unrelated to said particular perishable

Art Unit: 3626

commodity." It is respectfully submitted that such a limitation is tantamount to a negative limitation, which attempts to define the information in terms of what it is not, rather than what it is. As such, the scope of the claim cannot be ascertained. Claims 2-13 inherit the deficiencies of claim 1 through dependency and are also rejected.

Claim 14 recites similar wording to claim 14. As such, the analysis of claim 1 may be applied to claim 14.

Claims 15-26 inherit the deficiencies of claim 14 through dependency and are also rejected.

In light of the 112 2nd problems, the examiner is interpreting the claims and applying prior art as best possible using these interpretations. These interpretations of claim language are for examination purposes only. The Examiner will interpret the "perishable commodity" to be a seat on a flight and the "unrelated information" to be other seats on the flight.

The rejection of claim 1 with regards to lack of antecedent basis of the limitation "comparing said gathered past system-wide reservation information unrelated to said particular perishable commodity" in lines 10-12 is hereby withdrawn.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung (4,775,936).

(A) As per claims 1-2, Jung discloses a method utilizing a computer including a processing means (col. 3 lines 18-27) for determining a recommended overbooking level for a scarce resource such as seats on a vehicle, e.g. an aircraft, wherein the recommended level pertains to an airplane flight, such as a flight that travels daily between Detroit and Miami (reads on “unperished instance of a first perishable commodity”) that will occur in the future (note Jung’s discussion of forecasting the booking level) (col. 5 lines 1-45) comprising:

(a) obtaining through an information receiving means and storing for later use, historical traffic flow information including the number of groups booked on a vehicle and the number of groups actually transported on a vehicle, wherein the historical traffic flow information relates to flights that travel between Detroit/Atlanta and Atlanta Miami daily, and wherein there must be at least four flight records for each flight to ensure an accurate historical basis for calculations (col. 1 line 65 to col. 2 line 27, col. 3 lines 27-53, col. 5 lines 1-45, col. 7 line 65 to col. 8 line 22, col. 9 lines 43-52);

(b) receiving passenger reservations through a booking means for a flight from Detroit to Miami that will occur in the future, wherein the number of passenger that can be booked on the vehicle is set at an optimal level (col. 5 lines 1-45, col. 7 line 65 to col. 8 line 22, col. 9 lines 43-52, col. 10 lines 25-29);

(c) determining an optimal booking level using an overbooking program calculated by taking the average of three other booking levels:

- The first is a demand-based booking level which is based on average "no show" factors. The demand-based overbooking level is calculated such that the vehicle would always be full given average booking statistics (col. 2 lines 28-33);
- The second is an oversale-based booking level which is based on average booking statistics and a standard deviation value which takes predictability into account. The oversale-based booking level is calculated such that the capacity of the vehicle will be oversold a predetermined percentage of the time (col. 2 lines 34-40);
- The final booking level is a prediction-based booking level. This booking level predicts the optimal booking level for the next flight by averaging the demand-based and oversale-based booking levels and determining the linear relationship of the averages. A weighting factor is also applied to the prediction-based booking level. The weighting factor is a function of the mathematical credibility (i.e. the standard error of estimate) of the third booking level. This booking level is found by the following equation  $PBBL = M(N+1) + B$ , wherein  $N+1$  is the next flight to depart (col. 2 lines 40-49);
- The recommended booking level is then determined by averaging the demand-based booking level, the oversale-based booking level and the weighted prediction-based booking level (col. 2 lines 28-52 and col. 7 lines 14-30) and;

(d) displaying the recommended booking level in an overbooking report (col. 8 lines 36-40).

It is respectfully submitted that the recommended booking level is a form of a materialization level as Jung discloses the recommended booking level as a percentage, wherein the level is between 101%-200% for flights which "close" i.e., the flight overbooks. Further, the booking level includes the demand-based booking level which in practical terms is the actual demand for a seat on an aircraft based on historical data including group reservation data (i.e., the materialization of a group reservation) (col. 5 lines 54-68). Although Jung does not include outputting the demand-based booking level (i.e., the materialization level), it is respectfully submitted that the skilled artisan would have found it an obvious modification to Jung's method to output this level with the motivation of quickly adjusting computer overbooking levels based on calculations (Jung; col. 1 lines 58-63).

As per the recitation of,  
current reservation information relating to a current group reservation for said particular perishable commodity, which current group reservation has not yet perished; and

"system-wide reservation information including information unrelated to said particular perishable commodity," the Examiner provided relevant citations from Jung regarding these limitations above. Further, it is respectfully submitted that the Examiner has used the following logic in interpreting the Jung reference. Firstly, Jung discloses a flight occurring in the future between Detroit and Miami (col. 5 lines 1-45) which is



Art Unit: 3626

considered to be a form of Appellant's current group reservation for information "current reservation information relating to a current group reservation for said particular perishable commodity, which current group reservation has not yet perished".

Secondly, Jung discloses historical flight unit data stored in a database pertaining to at least four flights between Detroit and Atlanta and Atlanta and Miami which is considered to be a form of Appellant's system-wide reservation information including information unrelated to said particular perishable commodity. Thus, it is the position of the Examiner that Jung discloses both types of information (i.e., past system-wide reservation information and current reservation information) given the broadest reasonable interpretation of Jung.

(B) Claims 14-15 repeat the subject matter of method claims 1-2, respectively, as computer-readable code stored on media rather than as a series of steps. As the underlying processes of claims 1-2 have been shown to be fully disclosed by the teachings of Jung in the above rejections of claims 1-2, it is readily apparent that the processing means, disk drive in a computer, and computer programs (Jung; col. 3 lines 18-28 and col. 3 line 64 to col. 4 line 8) disclosed by Jung provide the means to carry out these steps. As such these limitations are rejected for the same reasons given above for method claims 1-2, and incorporated herein.

5. Claims 3-13 and 16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jung (4,775,936) as applied to claims 1 and 14 above, and further in view of Bowen et al. (5,648,900).

(A) As per claims 3, 5-6, 8-10, and 12, the relevant teachings of Jung are as discussed in the rejections above, and incorporated herein.

Jung fails to expressly disclose past reservation information including POS (Point-of-Sale) information pertaining to past and current reservations and the demographic information about group coordinators who made past group reservations.

Bowen discloses controlling and monitoring of group travel related services including storing in a storage unit information related to a historical and current group control record comprising information such as the name and ID of the owner and organizer of group travel, the group name, the wholesaler's address, the phone number of the owner, the inventory items obtained from a master inventory, the date contained on the inventory item on which unused inventory must be returned to a provider, an airline record locator, departure and arrival cities, the dates of travel (col. 3 lines 25 to col. 4 line 63, col. 8 lines 18-30, col. 10 lines 32-60, col. 11 line 63 to col. 12 line 22, col. 14 line 16 to col. 17 line 25, and col. 20 lines 3-40).

At the time the invention was made, the skilled artisan would have found it an obvious modification to include the aforementioned components of Bowen within the method of Jung with the motivation of enabling airlines and other parties to more easily track group reservations (Bowen; col. 1 lines 50-55) and thus ensuring advance

Art Unit: 3626

bookings are at a level which maximizes profits while at the same time minimizing dissatisfaction with supply (Jung; Abstract).

(B) As per claims 4 and 7, Jung discloses obtaining through an information receiving means and storing for later use, historical traffic flow information including the number of groups booked on a vehicle and the number of groups actually transported on a vehicle (col. 1 line 65 to col. 2 line 27 and col. 3 lines 27-53) and the next flights departing (col. 2 lines 28-52 and col. 7 lines 14-30).

(C) As per claims 11 and 13, Jung discloses historical information related to the capacity of each passenger airplane in the fleet (col. 3 lines 28-48) and information on the next flight to depart including the capacity of the airplane (col. 3 lines 28-48 and col. 7 lines 20-25).

(D) Claims 16-26 repeat the subject matter of method claims 16-26, respectively, as computer-readable code stored on media rather than as a series of steps. As the underlying processes of claims 16-26 have been shown to be fully disclosed by the teachings of Jung in the above rejections of claims 16-26, it is readily apparent that the processing means and computer programs (Jung; col. 3 lines 18-28 and col. 3 line 64 to col. 4 line 8) disclosed by Jung provide the means to carry out these steps. As such these limitations are rejected for the same reasons given above for method claims 16-26, and incorporated herein.

**(10) Response to Argument**

**A. Appellant argues the claims meet the requirements of 35 U.S.C. § 112.**

In response, the Examiner respectfully submits that the limitation "including information unrelated to said particular perishable commodity" renders claims 1 and 14 indefinite. It is unclear to the Examiner what type of information the Appellant intends to claim with the presently recited "information unrelated to said particular perishable commodity." The limitation is tantamount to a negative limitation, which attempts to define the information in terms of what it is not, rather than what it is.

Based on Appellant's definition of system-wide reservation information in claims 1 and 14, the "system-wide reservation information including information unrelated to said particular commodity" could be virtually any type of information. Furthermore, it is unclear as to what type of information is considered "related" information and what type of information is "unrelated" information. For example, if the commodity is an airline seat, information on two separate seats on the same flight may be reasonably interpreted as unrelated data (i.e. dealing with separate commodities) or related data (dealing with the same flight). Similarly, information on two separate flights may be deemed "related" because they are both related to flight information, or unrelated, because they are distinguished by some other attribute (i.e. different destinations, origins, etc.). As such, the scope of the claims cannot be determined, and the rejection under 35 U.S.C. § 112 is proper.

**B. Appellant argues the cited prior art does not render the claims obvious.**

**Appellant argues the Examiner has not established a *prima facie* case of obviousness.**

(A) Appellant attempts to differentiate the reservation information recited in the pending claims from that included in the Jung reference. More specifically, Appellant argues that reservation information as "defined" in the specification is related to all reservation information, not just the "traffic information" of the Jung reference (see pages 9-11 of Appellant's brief).

In response, the Appellant's arguments suggest that the Appellant intends a particular definition with the recitation of the term "reservation information" in the current claim language. However, the Appellant does not point out and the Examiner was unable to find a definition of this term in the current claim language or in the originally filed disclosure that supports a narrower interpretation of the term. At most, the Appellant has relied upon broad, non-committal or exemplary language in the specification. (e.g. reservation information includes commodity details... and/or POS information relating to reservations for perishable commodities). (Appellant's specification, page 11, lines 12-19, description of past and current reservation information.) In addition, Appellant cites page 17, line 15 to page 18, line 17 of the specification as defining reservation information. However, after reviewing this citation, there is no such definitions. Thus, the Examiner must give the claim language the

broadest reasonable interpretation, and the Examiner understands the term "reservation information" to include various types of information, such as that described in Jung.

Furthermore, during patent examination, claims are given their broadest reasonable interpretation consistent with the specification. MPEP § 2111. It is proper to use the specification to interpret what the Appellant meant by a word or phrase recited in the claim. However, it is not proper to read limitations appearing in the specification into the claim when these limitations are not recited in the claim. See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994); *Intervet America Inc. v. Kee-Vet Lab. Inc.*, 887 F.2d 1050, 1053, 12 USPQ2d 1474, 1476 (Fed. Cir. 1989).

Words of the claim are generally given their ordinary and customary meaning, unless it appears from the written description that they were used differently by the Appellant. Where an Appellant chooses to be his or her own lexicographer and defines terms with special meanings, he or she must set out the special definition explicitly and with "reasonable clarity, deliberateness, and precision" in the disclosure to give one of ordinary skill in the art notice of the change. See *Teleflex Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 1325, 63 USPQ2d 1374, 1381 (Fed. Cir. 2002), *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001), and MPEP § 2111.01. Pursuant to 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, "[i]t is Applicant's burden to precisely define the invention, and not the [examiner's]." *In re Morris*, 127 F.3d 1048, 1056, 44 USPQ2d 1023, 1029 (Fed. Cir. 1997). Therefore, it would not be proper for

Art Unit: 3626

the examiner to give words of the claim special meaning when no such special meaning has been defined by the Appellant in the written description.

(B) Appellant argues that Appellant's invention is different from Jung's invention because Appellant's invention focuses on characteristics of purchasers and other reservation attributes that have or have not resulted in materialization, and then analyzes the attributes of the pending reservation to see if these attributes point to a tendency to materialize or not materialize (page 11 of Appellant's Brief). Appellant further states that reservation information unrelated to the particular pending reservation is analyzed so that, for example, factors such as the time between the making of a reservation and the materialization of the reservation can be isolated and analyzed, regardless of, in the context of airline flights, which particular flight the prior reservation was for (See page 11-12 of Appellant's brief).

In response to Appellant's argument that the references fail to show certain features of Appellant's invention, it is noted that the features upon which Appellant relies (i.e., the features recited above) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, Appellant argues that the prior art does not suggest examining details relating to all flights, for example, each purchaser of tickets for any group flight reservation, each person making group reservations for any flight, the type of travel

being conducted (e.g., business, pleasure, etc.), whether the person making the reservation is a frequent flyer, etc. Appellant argues that Jung is limited to a particular flight segment rather than analyzing all flights.

First, claims 1 and 14 do not require that all flights be examined. It is noted that the features upon which Appellant relies (i.e., the features recited above) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, Appellant is attempting to distinguish Jung from Appellant's invention based on the idea that Jung only looks at a sub-set of data whereas Appellant's invention looks at system-wide reservation information. However, Jung's teachings of "traffic information" as defined by Appellant is considered to be a form of system-wide reservation information because some of this "traffic information" is system-wide reservation information that can be considered unrelated to the particular perishable commodity. For example, note Jung's teachings of a database having information on "the capacity of each passenger airplane in the fleet, the capacity of each passenger airplane in the fleet, the number of passengers scheduled to be transported on each airplane, the number of passengers actually transported on each airplane, the number of groups scheduled to be transported on each airplane, the number of passengers in groups actually transported on each airplane, the number of standby passengers actually transported on each airplane, the number of standby passengers that desired to be transported on each airplane but could not be



Art Unit: 3626

boarded, the number of passengers, for each airplane, who could not be transported because the capacity of the airplane was exceeded, the number of passengers, for each airplane that voluntarily agreed not to be transported on the airplane because its capacity was exceeded, and the number of '10 minute rule' passengers." This information, as discussed above, can be considered related or unrelated to the perishable commodity and is also "past-system-wide reservation information relating to past group reservations." As such, the Examiner respectfully disagrees with Appellant's characterization of the reference.

(C) Appellant argues that Bowen does not suggest analysis of group reservations for all flights and using that analysis to predict materialization for a particular group booking.

Bowen was relied upon to teach past reservation information including POS (Point-of-Sale) information pertaining to past and current reservations and the demographic information about group coordinators who made past group reservations.

In response to Appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

Art Unit: 3626

*Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Examiner has provided a motivation directly from the references themselves.

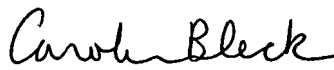
In response to Appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

  
Carolyn Bleck  
Patent Examiner  
Art Unit 3626

CB  
May 8, 2007

Application/Control Number: 09/628,398  
Art Unit: 3626

Page 18

Conferees:

Alexander Kalinowski   
Supervisory Patent Examiner  
Technology Center 3600

  
Luke Gilligan  
Primary Patent Examiner  
Technology Center 3600